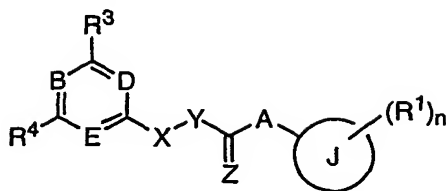


What is claimed is:

1. A compound according to Formula I,



I

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

B, D, and E are each independently either =N- or =C(R²)-, provided at least one of B, D, and E is =N-;

at each occurrence, each of R¹, R², and R³ is independently selected from -H, halogen, trihalomethyl, -CN, -NO₂, -OR⁵, -N(R⁵)OR⁵, -ON(R⁵)R⁵, -N(R⁵)N(R⁵)R⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)C(O)R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, -C(=NR⁷)N(R⁵)R⁵, -C(=NR⁷)R⁵, -C(=NR⁷)OR⁵, -N(R⁵)C(=NR⁷)N(R⁵)R⁵, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;

n is zero to five;

R⁴ is selected from -H, halogen, -CN, -NO₂, -N(R⁵)OR⁵, -ON(R⁵)R⁵, -N(R⁵)N(R⁵)R⁵, -OR⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)C(O)R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, -C(=NR⁷)N(R⁵)R⁵, -C(=NR⁷)R⁵, -C(=NR⁷)OR⁵, -N(R⁵)C(=NR⁷)N(R⁵)R⁵, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;

R² and R³, together with the atom or atoms to which they are attached, can combine to form a three- to seven-membered optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted cycloalkyl;

R^2 and R^4 , together with the atom or atoms to which they are attached, can combine to form a three- to seven-membered optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted cycloalkyl;

each R^5 is independently selected from -H, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, optionally substituted lower heterocyclylalkyl, and a single bond to an atom of R^1 ;

two of R^5 , together with the atom or respective atoms to which they are attached, can combine to form an optionally substituted three- to seven-membered heterocyclic;

R^5 and R^6 , together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;

R^5 and R^7 , together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;

each of X and Y is independently selected from -C(=O)-, -C(R^6) R^6 -, -O-, -N(R^5)-, -C(=NR⁷)-, and -S(O)₀₋₂-; provided when X is -O- or -N(R^5)-, then Y cannot be -C(H) R^{6a} -, where R^{6a} is -C(R^{20})(R^{21}) R^{22} wherein at least one of R^{20} , R^{21} and R^{22} is selected from phenyl, naphthyl, cyclohexyl, dihydronaphthyl tetrahydronaphthyl, and a five- to six-membered heteroaryl, each optionally substituted;

or X and Y can combine to form either -C(R^6)=C(R^6)- or -C≡C-;

Z is selected from O, S, and a double bond to an atom of R^1 ;

A is either -N(R^5)- or a single bond;

each R^6 is independently selected from -H, halogen, trihalomethyl, -CN, -NO₂, -NH₂, -OR⁵, -N(R^5) R^5 , -S(O)₀₋₂ R^5 , -SO₂N(R^5) R^5 , -CO₂ R^5 , -C(O)N(R^5) R^5 , -N(R^5)SO₂ R^5 , -N(R^5)C(O) R^5 , -N(R^5)CO₂ R^5 , -C(O) R^5 , optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted arylalkyl, and a single bond to an atom of R^2 of D or E when said either D or E is =C(R^2)-

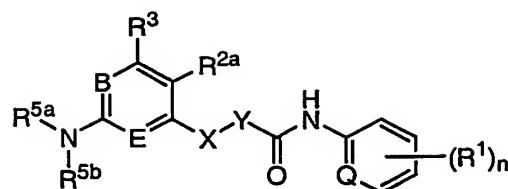
two of R^6 , together with the atom or atoms to which they are attached, can combine to form one of an optionally substituted three to seven-membered alicyclic, an optionally substituted three to seven-membered heteroalicyclic, and a double bond to an atom of R^2 of D or E when said either D or E is $=C(R^2)-$;

each R^7 is independently selected from -H, -CN, -NO₂, -N(R^5) R^5 , -OR⁵, -S(O)₀₋₂ R^5 , -SO₂N(R^5) R^5 , -CO₂ R^5 , optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, and a single bond to a carbon of J; and

J is selected from an optionally substituted five- to ten-membered aryl and an optionally substituted five- to ten-membered heteroaryl;

provided the compound is not one of: 2-(2-amino-5-cyano-6-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-(3-trifluoromethyl-phenyl)-acetamide, 2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-[3-(butyloxy)phenyl]acetamide, 2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-1,3-benzothiazol-2-ylacetamide, 2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-(5-ethyl-1,3,4-thiadiazol-2-yl)acetamide, 2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-(4-methyl-1,3-thiazol-2-yl)acetamide, 2-amino-4-([2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio)-6-(methylthio)pyrimidine-5-carbonitrile, 2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-1,3-thiazol-2-ylacetamide, 2-(5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 5-amino-2-methylsulfanyl-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(6-amino-5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 4,5-diamino-2-(2-methoxy-ethoxy)-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(5-cyano-6-phenyl-2-phenylcarbamoylmethylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, and a 2-(6-amino-3,5-dicyano-pyridin-2-ylsulfanyl)-N-phenyl-acetamide derivative.

2. The compound according to claim 1, wherein J is either a six-membered aryl or a five- to six-membered heteroaryl.
3. The compound according to claim 2, wherein D is $=C(R^2)-$.
4. The compound according to claim 3, wherein R^4 is -N(R^5) R^5 .
5. The compound according to claim 4, of Formula II,

**II**

wherein, R^1 , R^2 , R^3 , R^5 , n , B , E , X , and Y are as defined above; and Q is either $=N-$ or $=C(H)-$.

6. The compound according to claim 5, wherein R^{2a} is selected from halogen, $-CN$, $-C(=O)N(R^5)R^5$, $-CF_3$, $-CO_2R^5$, $-C(R^5)=C(R^5)R^5$, $-C\equiv C-R^5$, and $-NO_2$;

7. The compound according to claim 6, wherein at least one of R^{5a} and R^{5b} is $-H$.

8. The compound according to claim 7, wherein R^3 is selected from $-OR^5$, $-NR^5R^5$, and $-S(O)_{0-2}R^5$.

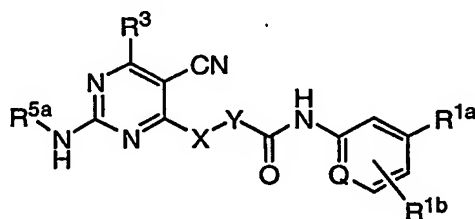
9. The compound according to claim 8, wherein at least one of B and E is $=N-$.

10. The compound according to claim 9, wherein R^1 is selected from halogen, $-OR^5$, $-NR^5R^5$, $-S(O)_{0-2}R^5$, $-NO_2$, perhaloalkyl, optionally substituted lower alkyl, optionally substituted aryl, and optionally substituted arylalkyl.

11. The compound according to claim 10, wherein R^1 is selected from halogen, $-OR^5$, $-NR^5R^5$, $-S(O)_{0-1}R^5$, $-NO_2$, perhaloalkyl, and optionally substituted lower alkyl.

12. The compound according to claim 11, wherein A is $-N(R^5)-$.

13. The compound according to claim 12, of Formula **III**,

**III**

wherein, R^3 , R^5 , X, Y, and Q are as defined above; R^{1a} is selected from halogen, lower perfluoroalkyl, $-NO_2$, $-OR^5$, and optionally substituted C_{1-4} alkyl; and R^{1b} is selected from halogen, $-OR^5$, $-N(R^5)R^5$, $-SR^5$, perfluoroalkyl, and optionally substituted lower alkyl.

14. The compound according to claim 13, wherein R^{1a} is selected from $-NO_2$, halogen, perfluoroalkyl, haloalkyl, optionally substituted C_{1-2} alkyl, and optionally substituted $-O-C_{1-2}$ alkyl.

15. The compound according to claim 14, wherein R^3 is selected from optionally substituted $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ perfluoroalkyl, optionally substituted $-N(H)C_{1-4}$ alkyl, optionally substituted $-N(C_{1-4}alkyl)C_{1-4}alkyl$, optionally substituted $-S(O)_{0-2}-C_{1-4}alkyl$, and optionally substituted $-S(O)_{0-2}-C_{1-4}perfluoroalkyl$.

16. The compound according to claim 15, wherein Y is either $-N(H)-$ or $-C(R^6)R^6-$.

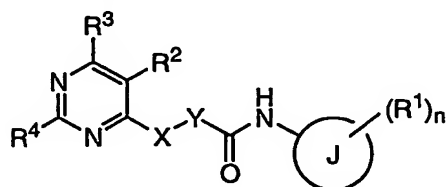
17. The compound according to claim 16, wherein X is selected from $-O-$, $-N(R^5)-$ and $-S-$.

18. The compound according to claim 17, wherein Y is $-C(R^6)R^6-$; wherein each R^6 is independently selected from $-H$, halogen, trihalomethyl, $-NH_2$, optionally substituted $-O-C_{1-4}alkyl$, optionally substituted $-N(H)C_{1-4}alkyl$, optionally substituted $-S-C_{1-4}alkyl$, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

19. The compound according to claim 18, wherein Y is $-C(H)R^6-$; wherein R^6 is independently selected from $-H$, halogen, trihalomethyl, $-NH_2$, optionally substituted $-O-C_{1-4}alkyl$, optionally substituted $-N(H)C_{1-4}alkyl$, optionally substituted $-S-C_{1-4}alkyl$, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

20. The compound according to claim 19, wherein Q is $=C(H)-$.

21. A compound according to Formula IV,



IV

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

R^1 is selected from halogen, $-OR^5$, $-N(R^5)R^5$, $-S(O)_{0-2}R^5$, $-NO_2$, $-C(O)R^5$, perhaloalkyl, optionally substituted lower alkyl, optionally substituted aryl, and optionally substituted arylalkyl.

n is zero to five;

R^2 is selected from halogen, $-CN$, $-C(=O)N(R^5)R^5$, $-CF_3$, $-CO_2R^5$, $-C(R^5)=C(R^5)R^5$, $-C\equiv C-R^5$, and $-NO_2$;

R^3 is selected from $-H$, halogen, trihalomethyl, $-CN$, $-NO_2$, $-OR^5$, $-N(R^5)OR^5$, $-ON(R^5)R^5$, $-N(R^5)N(R^5)R^5$, $-N(R^5)R^5$, $-S(O)_{0-2}R^5$, $-SO_2N(R^5)R^5$, $-CO_2R^5$, $-C(O)N(R^5)R^5$, $-N(R^5)SO_2R^5$, $-N(R^5)C(O)R^5$, $-N(R^5)CO_2R^5$, $-C(O)R^5$, $-C(=NR^7)N(R^5)R^5$, $-C(=NR^7)R^5$, $-C(=NR^7)OR^5$, $-N(R^5)C(=NR^7)N(R^5)R^5$, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;

R^4 is selected from $-CN$, halogen, $-NO_2$, $-N(R^5)OR^5$, $-ON(R^5)R^5$, $-N(R^5)N(R^5)R^5$, $-OR^5$, $-N(R^5)R^5$, $-SO_2N(R^5)R^5$, $-C(O)N(R^5)R^5$, $-C(=NR^7)N(R^5)R^5$, $-C(=NR^7)R^5$, $-C(=NR^7)OR^5$, $-N(R^5)C(=NR^7)N(R^5)R^5$, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl;

each R^5 is independently selected from $-H$, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, and optionally substituted lower heterocyclylalkyl;

two of R^5 , together with the atom or respective atoms to which they are attached, can combine to form an optionally substituted three- to seven-membered heterocyclic;

R^5 and R^6 , together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;

R^5 and R^7 , together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;

each of X and Y is independently selected from $-C(=O)-$, $-C(R^6)R^6-$, $-O-$, $-N(R^5)-$, $-C(=NR^7)-$, and $-S(O)_{0-2}-$; provided when X is $-O-$ or $-N(R^5)-$, then Y cannot be $-C(H)R^{6a}-$, where R^{6a} is $-C(R^{20})(R^{21})R^{22}$ wherein at least one of R^{20} , R^{21} and R^{22} is selected from phenyl, naphthyl, cyclohexyl, dihydronaphthyl tetrahydronaphthyl, and a five- to six-membered heteroaryl, each optionally substituted;

or X and Y can combine to form either $-C(R^6)=C(R^6)-$ or $-C\equiv C-$;

each R^6 is independently selected from $-H$, halogen, trihalomethyl, $-CN$, $-NO_2$, $-NH_2$, $-OR^5$, $-N(R^5)R^5$, $-S(O)_{0-2}R^5$, $-SO_2N(R^5)R^5$, $-CO_2R^5$, $-C(O)N(R^5)R^5$, $-N(R^5)SO_2R^5$, $-N(R^5)C(O)R^5$, $-N(R^5)CO_2R^5$, $-C(O)R^5$, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted arylalkyl, and a single bond to an atom of R^1 ;

two of R^6 , together with the atom or atoms to which they are attached, can combine to form either an optionally substituted three to seven-membered alicyclic or an optionally substituted three to seven-membered heteroalicyclic;

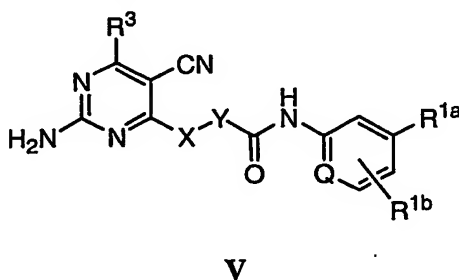
each R^7 is independently selected from $-H$, $-CN$, $-NO_2$, $-N(R^5)R^5$, $-OR^5$, $-S(O)_{0-2}R^5$, $-SO_2N(R^5)R^5$, $-CO_2R^5$, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, and a single bond to a carbon of J; and

J is selected from an optionally substituted five- to ten-membered aryl and an optionally substituted five- to ten-membered heteroaryl;

provided the compound is not one of: 2-(2-amino-5-cyano-6-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-(3-trifluoromethyl-phenyl)-acetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[3-(butyloxy)phenyl]acetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-benzothiazol-2-ylacetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(5-ethyl-1,3,4-thiadiazol-2-yl)acetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(4-methyl-1,3-thiazol-2-yl)acetamide, 2-amino-4-{[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio}-6-(methylthio)pyrimidine-5-carbonitrile, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-thiazol-2-ylacetamide, 2-(5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 5-amino-2-methylsulfanyl-thieno[2,3-d]pyrimidine-

6-carboxylic acid phenylamide, 2-(6-amino-5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 4,5-diamino-2-(2-methoxy-ethoxy)-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(5-cyano-6-phenyl-2-phenylcarbamoylemethylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, and a 2-(6-amino-3,5-dicyano-pyridin-2-ylsulfanyl)-N-phenyl-acetamide derivative.

22. The compound according to claim 21, wherein R^4 is $-NR^{5a}R^{5b}$; wherein at least one of R^{5a} and R^{5b} is $-H$.
23. The compound according to claim 22, wherein X is selected from $-O-$, $-N(R^5)-$, and $-S(O)_{0-2}-$.
24. The compound according to claim 23, wherein Y is either $-C(R^6)R^6-$ or $-N(R^5)-$.
25. The compound according to claim 24, wherein J is either phenyl or pyridyl.
26. The compound according to claim 25, wherein R^4 is $-NH_2$.
27. The compound according to claim 26, wherein at least one of R^1 is selected from halo, $-NO_2$, $-OR^5$, perfluoroalkyl, haloalkyl, and optionally substituted C_{1-4} alkyl.
28. The compound according to claim 27, of Formula V,



wherein R^1 , R^3 , X , and Y are as defined above; and Q is either $=N-$ or $=C(H)-$.

29. The compound according to claim 28, wherein R^{1a} is selected from halo, lower perfluoroalkyl, $-NO_2$, optionally substituted $-O-C_{1-4}$ alkyl, and optionally substituted C_{1-4} alkyl.
30. The compound according to claim 29, wherein R^3 is selected from optionally substituted $-O-C_{1-4}$ alkyl, $-O-C_{1-4}$ perfluoroalkyl, optionally substituted $-N(H)C_{1-4}$ alkyl, optionally substituted $-N(C_{1-4}alkyl)C_{1-4}alkyl$, optionally substituted $-S(O)_{0-2}-C_{1-4}alkyl$, and optionally substituted $-S(O)_{0-2}-C_{1-4}$ perfluoroalkyl.

31. The compound according to claim 30, wherein Y is $-C(R^6)R^6-$; wherein each R^6 is independently selected from -H, halogen, trihalomethyl, $-NH_2$, optionally substituted $-O-C_{1-4}$ alkyl, optionally substituted $-N(H)C_{1-4}$ alkyl, optionally substituted $-S-C_{1-4}$ alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

32. The compound according to claim 31, wherein Y is $-C(H)R^6-$; wherein R^6 is independently selected from -H, halogen, trihalomethyl, $-NH_2$, optionally substituted $-O-C_{1-4}$ alkyl, optionally substituted $-N(H)C_{1-4}$ alkyl, optionally substituted $-S-C_{1-4}$ alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

33. The compound according to claim 32, wherein Q is $=C(H)-$.

34. The compound according to claim 1, selected from Table 3.

Table 3

Entry	Name	Structure
1	2-[(3-cyano-4,6-dimethyl-5-nitropyridin-2-yl)oxy]-N-[3-(trifluoromethyl)phenyl]acetamide	
2	N-2-(2-amino-6-chloropyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	
3	[2-amino-6-(methylthio)pyrimidin-4-yl]methyl [3-(trifluoromethyl)phenyl]carbamate	

Table 3

Entry	Name	Structure
4	2-{{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}thio}-N-[5-(trifluoromethyl)pyridin-2-yl]acetamide	
5	N-2-[2-amino-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
6	2-{{2-amino-6-(methylthio)pyrimidin-4-yl}oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	
7	2-{{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}thio}-N-[3-(methoxy)phenyl]acetamide	
8	N-2-(2-amino-6-morpholin-4-ylpyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	
9	2-{{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}thio}-N-(4-chlorophenyl)acetamide	

Table 3

Entry	Name	Structure
10	2-{[2-amino-6-(1H-1,2,3-benzotriazol-1-yloxy)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
11	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(3-chlorophenyl)acetamide	
12	N-2-(2-amino-6-chloro-5-formylpyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	
13	N-2-[2-amino-5-formyl-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
14	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	
15	2-[(2-amino-6-chloropyrimidin-4-yl)thio]-N-[3-(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
16	2-[[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio]-N-methyl-N-[3-(trifluoromethyl)phenyl]acetamide	
17	N-2-[4-amino-6-(methylthio)-1,3,5-triazin-2-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
18	N-2-[4-(dimethylamino)-6-(methylthio)-1,3,5-triazin-2-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
19	N-2-[4-(methylamino)-6-(methylthio)-1,3,5-triazin-2-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
20	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
21	2-[[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio]-N-[3-(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
22	'2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[3-(butyloxy)phenyl]acetamide	
23	'2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-benzothiazol-2-ylacetamide	
24	'2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(5-ethyl-1,3,4-thiadiazol-2-yl)acetamide	
25	'2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(4-methyl-1,3-thiazol-2-yl)acetamide	
26	'2-amino-4-{[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio}-6-(methylthio)pyrimidine-5-carbonitrile	
27	'2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-thiazol-2-ylacetamide	
28	ethyl 5-[(2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}acetyl)amino]-4-cyano-3-methylthiophene-2-carboxylate	

Table 3

Entry	Name	Structure
29	2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-pyridin-2-ylacetamide	
30	2-amino-4-([2-[2,5-bis(methyloxy)phenyl]-2-oxoethyl]thio)-6-(methylthio)pyrimidine-5-carbonitrile	
31	2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-[4-fluoro-3-(trifluoromethyl)phenyl]acetamide	
32	2-[(2,6-diaminopyrimidin-4-yl)thio]-N-[4-fluoro-3-(trifluoromethyl)phenyl]acetamide	
33	2-[(2,6-diaminopyrimidin-4-yl)thio]-N-[3-(trifluoromethyl)phenyl]acetamide	
34	2-([2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio)-N-[4-chloro-3-(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
35	2-amino-4-(methylthio)-6-({2-oxo-1-[3-(trifluoromethyl)phenyl]pyrrolidin-3-yl}thio)pyrimidine-5-carbonitrile	
36	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[6-(trifluoromethyl)pyridin-2-yl]acetamide	
37	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[4-(trifluoromethyl)pyridin-2-yl]acetamide	
38	{6-(methylthio)-2-[(phenylmethyl)amino]pyrimidin-4-yl}methyl [3-(trifluoromethyl)phenyl]carbamate	
39	[6-(methylamino)-2-(methylthio)pyrimidin-4-yl]methyl [3-(trifluoromethyl)phenyl]carbamate	
40	{2-(methylthio)-6-[(phenylmethyl)amino]pyrimidin-4-yl}methyl [3-(trifluoromethyl)phenyl]carbamate	

Table 3

Entry	Name	Structure
41	2-[[2-(acetylthio)-5-cyano-6-(methylthio)pyrimidin-4-yl]thio]-N-[3-(trifluoromethyl)phenyl]acetamide	
42	(2S)-2-[[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]oxy]-N-[3-(trifluoromethyl)phenyl]propanamide	
43	2-[(2-amino-6-chloro-5-formylpyrimidin-4-yl)thio]-N-[3-(trifluoromethyl)phenyl]acetamide	
44	N-2-[2-amino-5-(hydroxymethyl)-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
45	2-[[2-amino-5-formyl-6-(methylamino)pyrimidin-4-yl]thio]-N-[3-(trifluoromethyl)phenyl]acetamide	
46	2-[[2-amino-5-formyl-6-(methylthio)pyrimidin-4-yl]oxy]-N-[3-(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
47	2-{{4-amino-6-(methylthio)-1,3,5-triazin-2-yl}oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	
48	2-{{2-amino-6-(methylthio)pyrimidin-4-yl}thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
49	2-amino-4-(methylthio)-6-{{2-oxo-2-(3-oxo-3,4-dihydro-2H-1,4-benzoxazin-6-yl)ethyl}thio}pyrimidine-5-carbonitrile	
50	2-{{2-amino-6-chloro-5-formylpyrimidin-4-yl}oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	
51	2-{{2-amino-5-formyl-6-(phenylthio)pyrimidin-4-yl}thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
52	2-{{2-amino-5-(hydroxymethyl)-6-(phenylthio)pyrimidin-4-yl}thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
53	2-{{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}thio}-N-[2-methyl-3-(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
54	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[2-(methyloxy)-5-(trifluoromethyl)phenyl]acetamide	
55	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[2-chloro-5-(trifluoromethyl)phenyl]acetamide	
56	2-{[2-amino-5-(hydroxymethyl)-6-(methylthio)pyrimidin-4-yl]oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	
57	N-2-(6-amino-1H-pyrazolo[3,4-d]pyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	
58	N-2-[2-amino-5-[(E)-hydrazonomethyl]-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
59	N-2-[2-amino-5-[(E)-hydroxyimino)methyl]-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	

Table 3

Entry	Name	Structure
60	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
61	2-{[2-amino-5-cyano-6-(methylamino)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
62	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[2-amino-5-(trifluoromethyl)phenyl]acetamide	
63	2-amino-4-(methylthio)-6-({[6-(trifluoromethyl)-1H-benzimidazol-2-yl]methyl}thio)pyrimidine-5-carbonitrile	
64	2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]hydrazinecarboxamide	
65	N-2-[5-cyano-2-(methylamino)-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	

Table 3

Entry	Name	Structure
66	2-{[2-amino-5-cyano-6-(dimethylamino)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	
67	(S)-1-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]prolinamide	
68	(2R)-2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]oxy}-N-[3-(trifluoromethyl)phenyl]propanamide	
69	1-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]oxy}-N-[3-(trifluoromethyl)phenyl]cyclopropane carboxamide	
70	(2S)-2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]oxy}-3-methyl-N-[3-(trifluoromethyl)phenyl]butanamide	
71	N-2-[5-cyano-2-(dimethylamino)-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	

Table 3

Entry	Name	Structure
72	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]glycinamide	
73	1-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]amino}-N-[3-(trifluoromethyl)phenyl]cyclopropane carboxamide	
74	N-2-[2-amino-5-cyano-6-(methylsulfinyl)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
75	N-2-[2-amino-5-cyano-6-(methylsulfonyl)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
76	N-2-(5-cyano-2-morpholin-4-ylpyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	
77	2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-[3,5-bis(trifluoromethyl)phenyl]acetamide	

Table 3

Entry	Name	Structure
78	N-2-[2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
79	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[2-(methyloxy)-5-(trifluoromethyl)phenyl]-L-alaninamide	
80	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[2-chloro-5-(trifluoromethyl)phenyl]-L-alaninamide	
81	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-2-methyl-N-[3-(trifluoromethyl)phenyl]alaninamide	
82	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-{3-[(4-methylpiperazin-1-yl)carbonyl]phenyl}-L-alaninamide	
83	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-D-alaninamide	

Table 3

Entry	Name	Structure
84	2-[(2-amino-5-cyano-6-morpholin-4-yl)pyrimidin-4-ylthio]-N-[3-(trifluoromethyl)phenyl]acetamide	
85	(R)-1-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]prolinamide	
86	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
87	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-[2-(dimethylamino)ethyl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
88	N-2-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
89	N-2-(2,6-diamino-5-cyanopyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	

Table 3

Entry	Name	Structure
90	N-2-(2-amino-5-cyanopyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
91	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
92	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-(3-{[2-(diethylamino)ethyl]oxy}phenyl)-L-alaninamide	
93	2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-1,2-dimethyl-N-[3-(trifluoromethyl)phenyl]hydrazinecarboxamide	
94	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-amino-5-(trifluoromethyl)phenyl]-L-alaninamide	
95	ethyl [1-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-2-({[3-(trifluoromethyl)phenyl]amino}carbonyl)hydrazino]acetate	

Table 3

Entry	Name	Structure
96	2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-2-methyl-N-[3-(trifluoromethyl)phenyl]hydrazinecarboxamide	
97	3,5-diamino-4,6-dimethyl-N-[3-(trifluoromethyl)phenyl]furo[2,3-b]pyridine-2-carboxamide	
98	3-amino-4,6-dimethyl-5-nitro-N-[3-(trifluoromethyl)phenyl]furo[2,3-b]pyridine-2-carboxamide	
99	N-2-(2-amino-5-cyano-6-hydroxypyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
100	N-2-[5-cyano-2-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
101	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-(tetrahydro-2H-pyran-4-ylmethyl)-N-[3-(trifluoromethyl)phenyl]glycinamide	

Table 3

Entry	Name	Structure
102	N-2-(2-amino-5-cyano-6-[[2-(dimethylamino)ethyl]oxy]pyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
103	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-6-[[[(1,1-dimethylethyl)oxy]carbonyl]-N-[3-(trifluoromethyl)phenyl]-L-lysine]	
104	2-amino-4-(methylthio)-6-(methyl((1S)-1-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]ethyl)amino)pyrimidine-5-carbonitrile	
105	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-[2-(tetrahydro-2H-pyran-4-yl)ethyl]-N-[3-(trifluoromethyl)phenyl]glycinamide	
106	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-3-[[2-(diethylamino)ethyl]amino]-5-(trifluoromethyl)phenyl]-L-alaninamide	

Table 3

Entry	Name	Structure
107	2-amino-4-(methylthio)-6-(((1S)-1-[6-(trifluoromethyl)-1H-benzimidazol-2-yl]ethyl)amino)pyrimidine-5-carbonitrile	
108	2-[2-amino-5-cyano-6-[1-(3-trifluoromethyl-phenyl)carbamoyl]-1S-ethylamino]-pyrimidin-4-ylamino]-N-(3-trifluoromethyl-phenyl)-2S-propionamide	
109	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-methyl-N-(3-methylphenyl)glycinamide	
110	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-methyl-N-[3-(1-methylethyl)phenyl]glycinamide	
111	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-5-[imino(nitroamino)methyl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
112	methyl 3-((N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-L-alanyl)amino)-5-(trifluoromethyl)benzoate	

Table 3

Entry	Name	Structure
113	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-(3-nitrophenyl)-L-alaninamide	
114	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-lysινamide	
115	N-2-[2-amino-5-cyano-6-(propyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
116	N-2-[5-cyano-2-[(2-(methyloxy)ethyl)amino]-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
117	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-argininamide	
118	N-2-[2-amino-5-cyano-6-(methylsulfinyl)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	

Table 3

Entry	Name	Structure
119	N-2-[2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
120	N-2-[2-amino-5-cyano-6-(propyloxy)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
121	N-2-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-2-methyl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
122	N-2-[2-amino-5-cyano-6-[(1-methylethyl)oxy]pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
123	N-5-acetyl-N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
124	N-2-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-(3-aminophenyl)-L-alaninamide	

Table 3

Entry	Name	Structure
125	3-({N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-L-alanyl}amino)-N-[2-(dimethylamino)ethyl]-5-(trifluoromethyl)benzamide	
126	2-(methyloxy)ethyl ((4S)-4-[[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]amino]-5-oxo-5-[[3-(trifluoromethyl)phenyl]amino]pentyl)carbamate	
127	2-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]hydrazinecarboxamide	
128	1,1-dimethylethyl ((4S)-4-[[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]amino]-5-oxo-5-[[3-(trifluoromethyl)phenyl]amino]pentyl)carbamate	
129	N-2-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	

Table 3

Entry	Name	Structure
130	3-((N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-methyl-L-alanyl)amino)-N-[2-(dimethylamino)ethyl]-5-(trifluoromethyl)benzamide	<p>Chiral</p>
131	3-((N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-methyl-L-alanyl)amino)-N-[3-(4-methylpiperazin-1-yl)propyl]-5-(trifluoromethyl)benzamide	<p>Chiral</p>
132	N-2-~[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-2-~methyl-N-[3-[(trifluoromethyl)oxy]phenyl]-L-alaninamide	<p>Chiral</p>
133	N-2-~[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-(3-bromophenyl)-N-2-~methyl-L-alaninamide	<p>Chiral</p>

Table 3

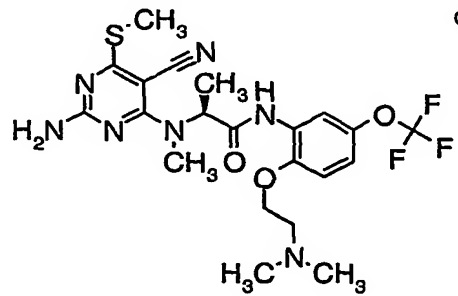
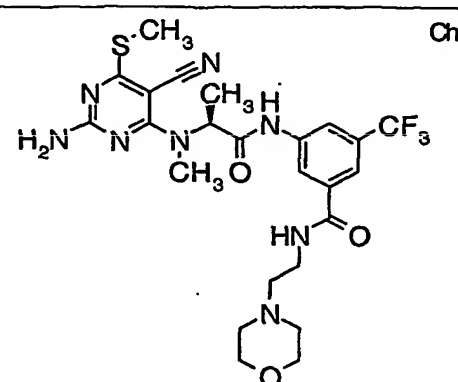
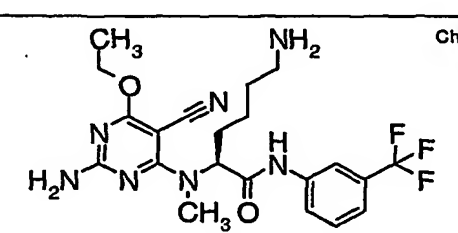
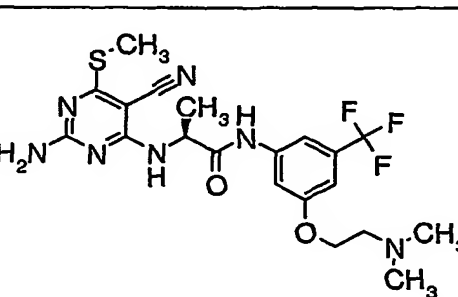
Entry	Name	Structure
134	N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N-{2-[(2-(dimethylamino)ethyl)oxy]-5-[(trifluoromethyl)oxy]phenyl}-N~2~-methyl-L-alaninamide	 <p>Chiral</p>
135	3-({N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-methyl-L-alanyl}amino)-N-(2-morpholin-4-ylethyl)-5-(trifluoromethyl)benzamide	 <p>Chiral</p>
136	N~2~-{2-amino-5-cyano-6-(ethoxy)pyrimidin-4-yl}-N~2~-methyl-N-[3-(trifluoromethyl)phenyl]-L-lysινamide	 <p>Chiral</p>
137	N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N-{3-[(2-(dimethylamino)ethyl)oxy]-5-(trifluoromethyl)phenyl}-L-alaninamide	 <p>Chiral</p>

Table 3

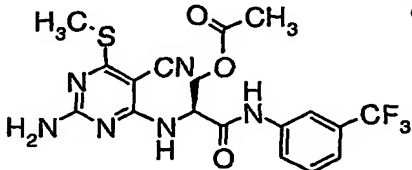
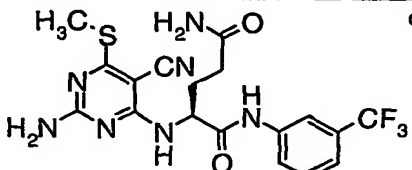
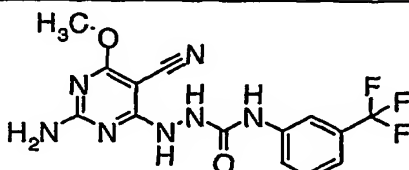
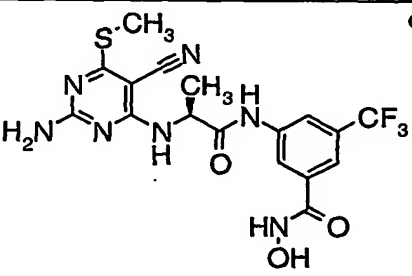
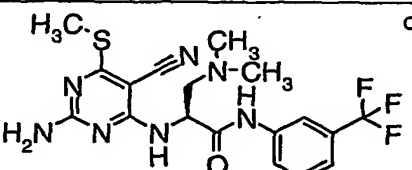
Entry	Name	Structure
138	(2S)-2-[[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]amino]-3-oxo-3-[[3-(trifluoromethyl)phenyl]amino]propyl acetate	
139	N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-1--[3-(trifluoromethyl)phenyl]-L-glutamamide	
140	2-[2-amino-5-cyano-6-(methoxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]hydrazinecarboxamide	
141	3-((N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-L-alanyl)amino)-N-hydroxy-5-(trifluoromethyl)benzamide	
142	N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-3-(dimethylamino)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	

Table 3

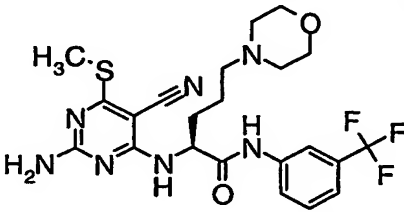
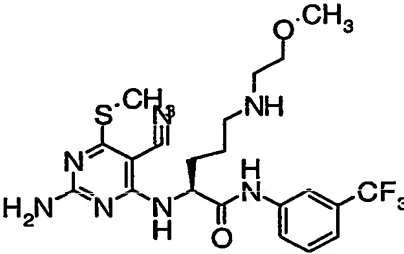
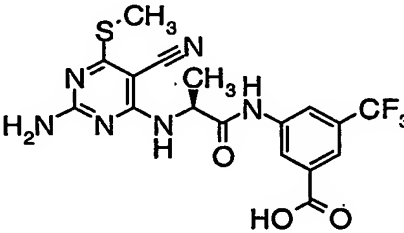
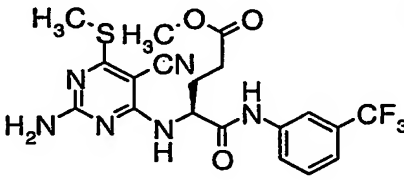
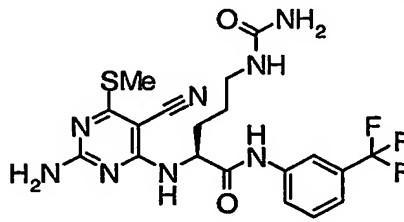
Entry	Name	Structure
143	N~2~- [2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-5-morpholin-4-yl-N-[3-(trifluoromethyl)phenyl]-L-norvalinamide	
144	N~2~- [2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N~5~- [2-(methyloxy)ethyl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
145	3-((N-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-L-alanyl)amino)-5-(trifluoromethyl)benzoic acid	
146	methyl N~2~- [2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamate	
147	N~5~- (aminocarbonyl)-N~2~- [2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	

Table 3

Entry	Name	Structure
148	N~2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	<p>Chiral</p>
149	N~2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamine	<p>Chiral</p>
150	N~2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-serinamide	<p>Chiral</p>
151	N~2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-O-(phenylmethyl)-N-[3-(trifluoromethyl)phenyl]-L-serinamide	<p>Chiral</p>
152	N~2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-argininamide	<p>Chiral</p>

Table 3

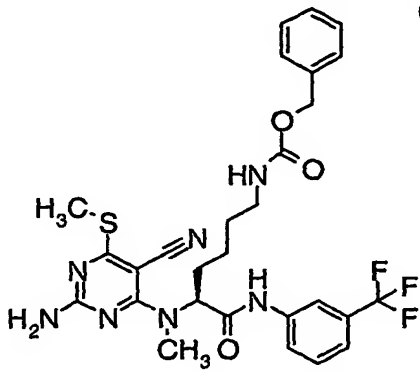
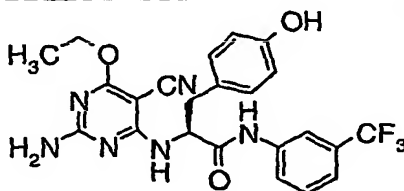
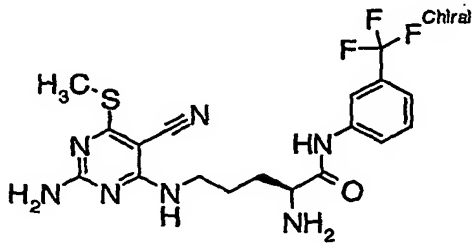
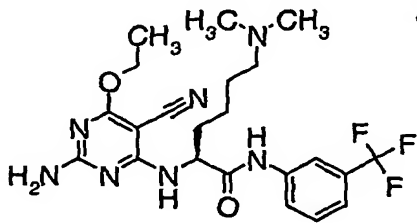
Entry	Name	Structure
153	N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N~2~-methyl-N~6~-{[(phenylmethyl)oxy]carbonyl}-N-[3-(trifluoromethyl)phenyl]-L-lysineamide	 <p>Chiral</p>
154	N~alpha~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-tyrosineamide	 <p>Chiral</p>
155	N~5~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-ornithineamide	 <p>Chiral</p>
156	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N~6~,N~6~-dimethyl-N-[3-(trifluoromethyl)phenyl]-L-lysineamide	 <p>Chiral</p>

Table 3

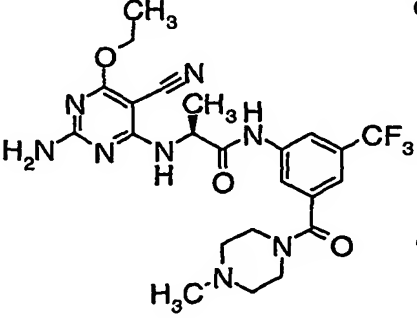
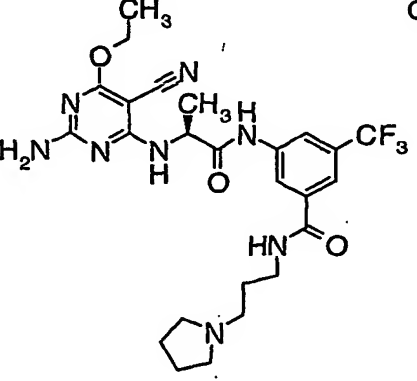
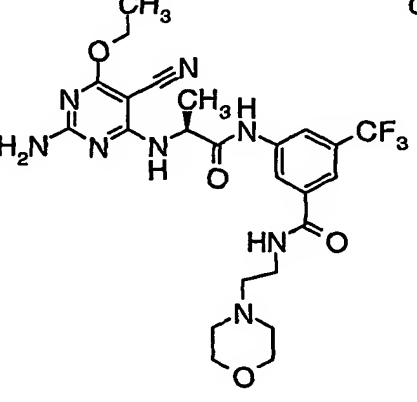
Entry	Name	Structure
157	N-2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-[(4-methylpiperazin-1-yl)carbonyl]-5-(trifluoromethyl)phenyl]-L-alaninamide	 <p>Chiral</p>
158	3-((N-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-L-alanyl)amino)-N-(3-pyrrolidin-1-ylpropyl)-5-(trifluoromethyl)benzamide	 <p>Chiral</p>
159	3-((N-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-L-alanyl)amino)-N-(2-morpholin-4-ylethyl)-5-(trifluoromethyl)benzamide	 <p>Chiral</p>

Table 3

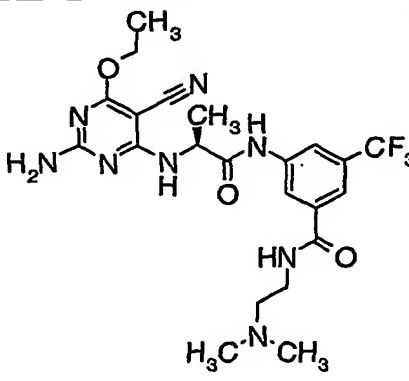
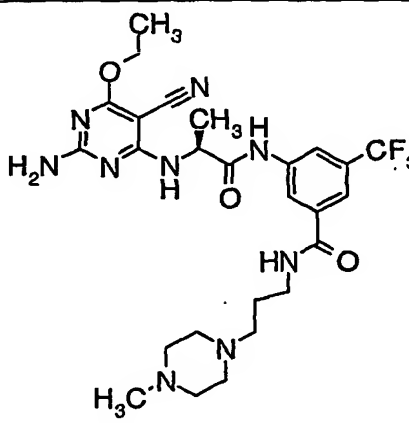
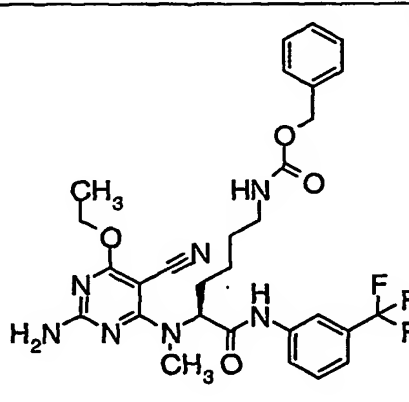
Entry	Name	Structure
160	3-((N-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-L-alanyl)amino)-N-[2-(dimethylamino)ethyl]-5-(trifluoromethyl)benzamide	 <p>Chiral</p>
161	3-((N-[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-L-alanyl)amino)-N-[3-(4-methylpiperazin-1-yl)propyl]-5-(trifluoromethyl)benzamide	 <p>Chiral</p>
162	N-2-[[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-2-methyl-N-6-[[[(phenylmethyl)oxy]carbonyl]-N-[3-(trifluoromethyl)phenyl]-L-lysine]amido	 <p>Chiral</p>

Table 3

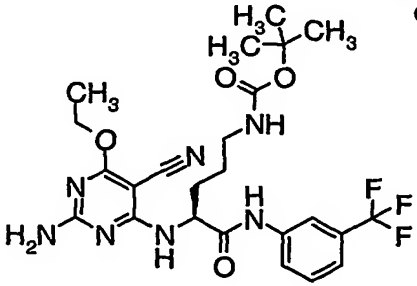
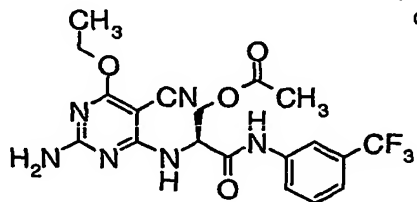
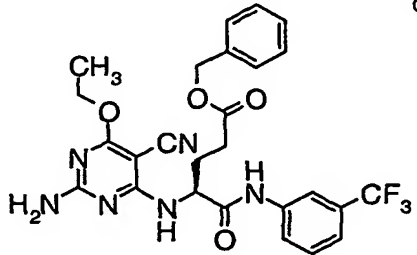
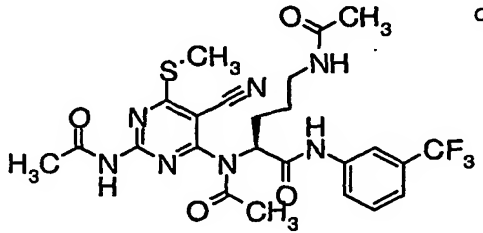
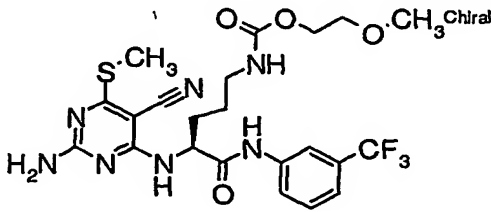
Entry	Name	Structure
163	1,1-dimethylethyl ((4S)-4-((2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl)amino)-5-oxo-5-[[3-(trifluoromethyl)phenyl]amino]pentyl)carbamate	
164	(2S)-2-[[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]amino]-3-oxo-3-[[3-(trifluoromethyl)phenyl]amino]propyl acetate	
165	phenylmethyl N~2~-2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamate	
166	N~2~,N~5~-diacetyl-N~2~-2-(acetylamino)-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
167	2-(methyloxy)ethyl ((4S)-4-((2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl)amino)-5-oxo-5-[[3-(trifluoromethyl)phenyl]amino]pentyl)carbamate	

Table 3

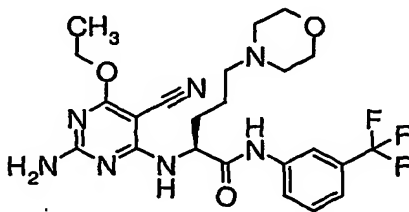
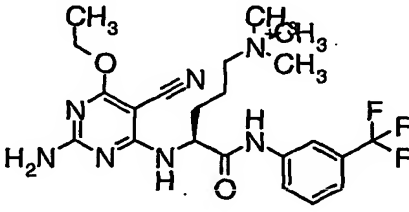
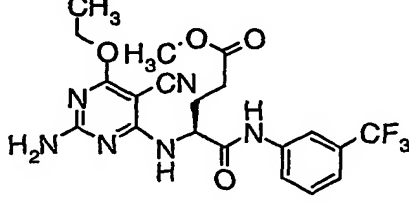
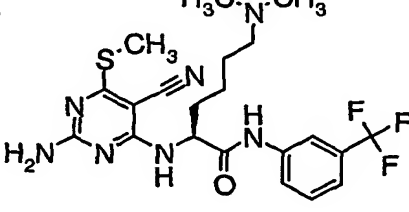
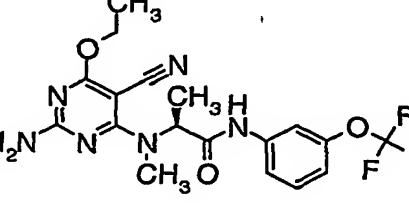
Entry	Name	Structure
168	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-5-morpholin-4-yl-N-[3-(trifluoromethyl)phenyl]-L-norvalinamide	
169	N-((4S)-4-[[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]amino]-5-oxo-5-[[3-(trifluoromethyl)phenyl]amino]pentyl)-N,N-dimethylmethanaminium	
170	Methyl N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamate	
171	N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N~6~,N~6~-dimethyl-N-[3-(trifluoromethyl)phenyl]-L-lysineamide	
172	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N~2~-methyl-N-[3-(trifluoromethyloxy)phenyl]-L-alanineamide	

Table 3

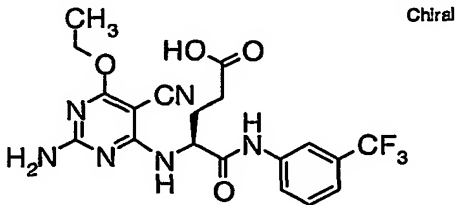
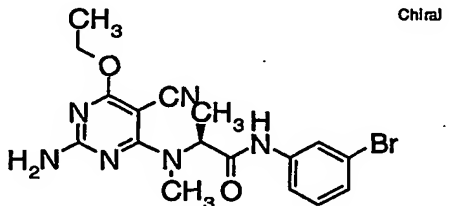
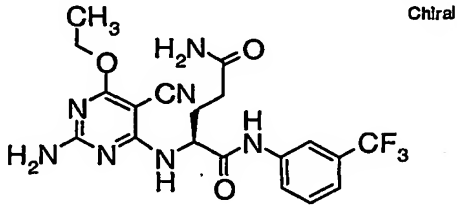
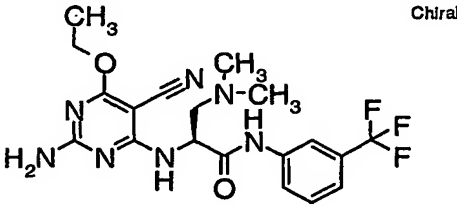
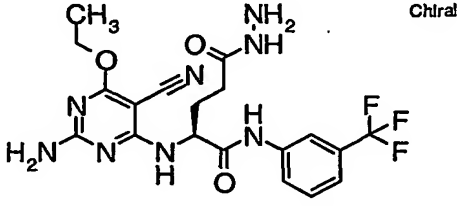
Entry	Name	Structure
173	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamine	
174	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-(3-bromophenyl)-N~2~-methyl-L-alaninamide	
175	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N~1~-{3-(trifluoromethyl)phenyl}-L-glutamamide	
176	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-3-(dimethylamino)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
177	Structure possibly contains amino acid derivative which is not supported in current version!	

Table 3

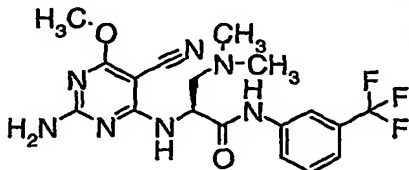
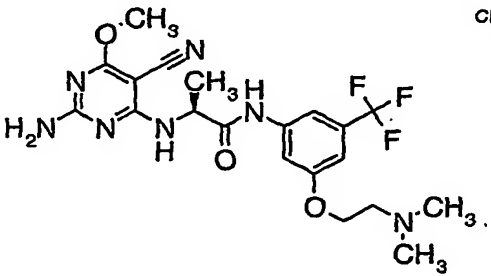
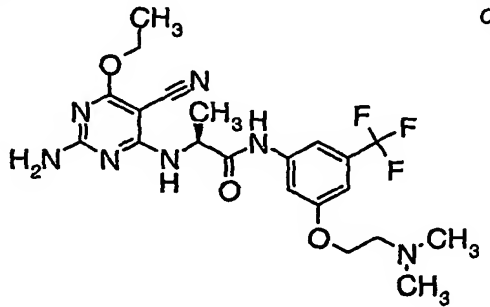
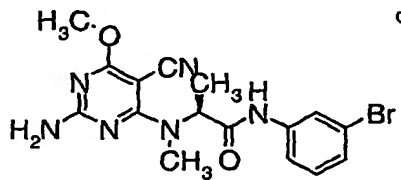
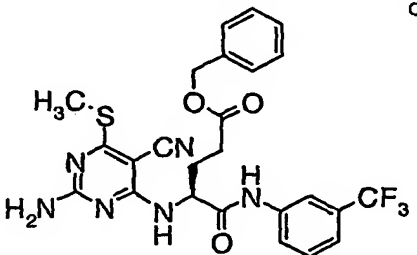
Entry	Name	Structure
178	N~2~-{2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl}-3-(dimethylamino)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
179	N~2~-{2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl}-N-[3-[[2-(dimethylamino)ethyl]oxy]-5-(trifluoromethyl)phenyl]-L-alaninamide	
180	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-[[2-(dimethylamino)ethyl]oxy]-5-(trifluoromethyl)phenyl]-L-alaninamide	
181	N~2~-{2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl}-N-[3-bromophenyl]-N~2~-methyl-L-alaninamide	
182	phenylmethyl N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-alpha-glutamate	

Table 3

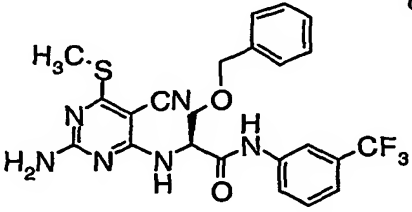
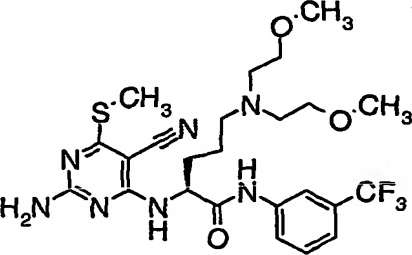
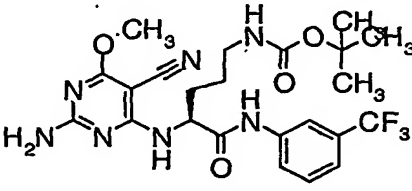
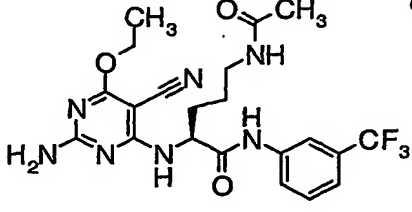
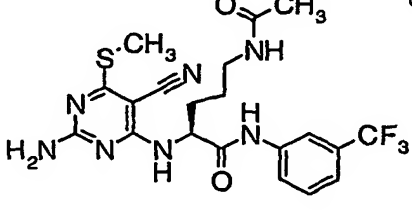
Entry	Name	Structure
183	N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-O-(phenylmethyl)-N-[3-(trifluoromethyl)phenyl]-L-serinamide	 Chiral
184	N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-5~,N-5~-bis[2-(methyloxy)ethyl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	 Chiral
185	1,1-dimethylethyl ((4S)-4-([2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]amino)-5-oxo-5-([3-(trifluoromethyl)phenyl]amino)pentyl)carbamate	 Chiral
186	N-5~-acetyl-N-2--[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	 Chiral
187	N-5~-acetyl-N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	 Chiral

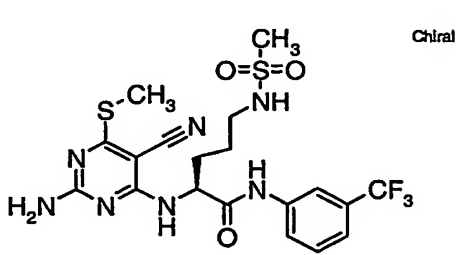
Table 3

Entry	Name	Structure
188	N~2~-2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-N~2~-methyl-N-[3-[(trifluoromethyl)oxy]phenyl]-L-alaninamide	
189	methyl 3-({N-[2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-L-alanyl}amino)-5-(trifluoromethyl)benzoate	
190	3-({N-[2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-L-alanyl}amino)-N-[2-(dimethylamino)ethyl]-5-(trifluoromethyl)benzamide	
191	N~2~-2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-3-morpholin-4-yl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
192	N~2~-2-amino-5-cyano-6-(methyloxy)pyrimidin-4-yl]-3-morpholin-4-yl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	

Table 3

Entry	Name	Structure
193	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-3-morpholin-4-yl-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	
194	N~5~-{(aminocarbonyl)-N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	
195	N~2~-{2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-D-lysineamide	
196	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-N-[3-(trifluoromethyl)phenyl]-D-lysineamide	
197	N~2~-{2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl}-O-methyl-N-[3-(trifluoromethyl)phenyl]-L-serinamide	

Table 3

Entry	Name	Structure
198	N-2--[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-5--(methylsulfonyl)-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	

35. A pharmaceutical composition comprising the compound according to any one of claims 1 - 34 and a pharmaceutically acceptable carrier.

36. A metabolite of the compound or the pharmaceutical composition according to any one of claims 1 - 35.

37. A method of modulating the *in vivo* activity of a kinase, the method comprising administering to a subject an effective amount of a composition comprising at least one of: the compound according to any of claims 1- 34, the pharmaceutical composition according to claim 35, a compound explicitly provided against in claim 1 or 21, and a pharmaceutical composition comprising a compound, the composition of which was, explicitly provided against in claim 1 or 21 and a pharmaceutically acceptable carrier.

38. The method according to claim 37, wherein the kinase is p70S6K.

39. The method according to claim 38, wherein modulating the *in vivo* activity of p70S6K comprises inhibition of p70S6K.

40. A method of treating diseases or disorders associated with uncontrolled, abnormal, and/or unwanted cellular activities, the method comprising administering, to a mammal in need thereof, a therapeutically effective amount of a composition comprising at least one of: the compound according to any of claims 1 -34, the pharmaceutical composition according to claim 35, a compound, the composition of which was, explicitly provided against in claim 1

or 21, and a pharmaceutical composition comprising a compound, the composition of which was, explicitly provided against in claim 1 or 21 and a pharmaceutically acceptable carrier.

41. A method of screening for modulator of a p70S6 kinase, the method comprising combining either a compound according to any one of claims 1 - 34 or a compound, the composition of which was, explicitly provided against in claim 1 or 21, and at least one candidate agent and determining the effect of the candidate agent on the activity of said kinase.

42. A method of inhibiting proliferative activity in a cell, the method comprising administering an effective amount of: the compound according to any of claims 1 - 34, the pharmaceutical composition according to claim 35, a compound, the composition of which was, explicitly provided against in claim 1 or 21, and a pharmaceutical composition comprising a compound, the composition of which was, explicitly provided against in claim 1 or 21 and a pharmaceutically acceptable carrier.

43. A method of inhibiting abnormal metabolic activity in a cell, the method comprising administering an effective amount of: the compound according to any of claims 1 - 34, the pharmaceutical composition according to claim 35, a compound, the composition of which was, explicitly provided against in claim 1 or 21, and a pharmaceutical composition comprising a compound, the composition of which was, explicitly provided against in claim 1 or 21 and a pharmaceutically acceptable carrier.